

UNITED STATES DISTRICT COURT  
DISTRICT OF NEVADA

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POWERbahn, LLC,

Plaintiff,

v.

Foundation Fitness LLC, Wahoo Fitness  
L.L.C., and Giant Bicycle, Inc.,

Defendants.

Case No. 3:15-cv-00327-MMD-WGC

ORDER

(Defendants' Motion to for Judgment on  
Pleadings – ECF No. 54)

**I. SUMMARY**

Plaintiff POWERbahn, LLC ("POWERbahn") alleges that Defendants Foundation Fitness, LLC ("Foundation"), Wahoo Fitness, L.L.C. ("Wahoo"), and Giant Bicycle, Inc. ("Giant") infringed on several of its patents related to exercise equipment utilizing its virtual flywheel technology. (ECF No. 1.) Foundation and Wahoo (collectively, "Defendants") seek judgment on the pleadings, pursuant to Fed. R. Civ. P. 12(c), arguing that POWERbahn's patents are invalid as a matter of law. (ECF No. 54.) In addition to Defendants' Motion for Judgment on the Pleadings ("Motion") (ECF No. 25), the Court has reviewed POWERbahn's response (ECF No. 59), and Defendants' reply (ECF No. 60). For the reasons discussed below, the Court will deny the Motion.

**II. BACKGROUND**

POWERbahn holds several patents disclosing technology which enables stationary exercise bicycles to mimic the resistance that a bicyclist would feel if she were actually riding outdoors. The technology, which POWERbahn calls a virtual flywheel, is

1 claimed in U.S. Patents Nos. 7,066,865 (“the ‘865 patent”), 7,862,476, (“the ‘476  
 2 patent”), 7,841, 964 (“the ‘964 patent”), and 7,608,015 (“the ‘015 patent”). (ECF No. 1 at  
 3 1, 6-11.) POWERbahn alleges that Foundation has willfully violated each of these  
 4 patents and that Wahoo and Giant have directly infringed each. (*Id.*) Defendants argue  
 5 that POWERbahn’s patents are invalid as a matter of law because they claim  
 6 unpatentable laws of nature. (ECF No. 54 at 2.)

### 7 **III. LEGAL STANDARDS**

#### 8 **A. Judgment on the Pleadings**

9 A Fed. R. Civ. P. 12(c) motion for judgment on the pleadings utilizes the same  
 10 standard as a Rule 12(b)(6) motion to dismiss for failure to state a claim upon which  
 11 relief can be granted in that it may only be granted when it is clear to the court that “no  
 12 relief could be granted under any set of facts that could be proven consistent with the  
 13 allegations.” *McGlinchy v. Shull Chem. Co.*, 845 F.2d 802 (9th Cir. 1988) (citations  
 14 omitted). Dismissal under Rule 12(b)(6) may be based on either the lack of a cognizable  
 15 legal theory or absence of sufficient facts alleged under a cognizable legal theory.  
 16 *Balistreri v. Pacifica Police Dep’t*, 901 F.2d 696, 699 (9th Cir. 1990).

17 A plaintiff’s complaint must allege facts to state a claim for relief that is plausible  
 18 on its face. *See Ashcroft v. Iqbal*, 556 U.S. 662, 677, (2009). A claim has “facial  
 19 plausibility” when the party seeking relief “pleads factual content that allows the court to  
 20 draw the reasonable inference that the defendant is liable for the misconduct alleged.”  
 21 *Id.* Although the court must accept as true the well-pled facts in a complaint, conclusory  
 22 allegations of law and unwarranted inferences will not defeat an otherwise proper [Rule  
 23 12(b)(6)] motion. *Vasquez v. L.A. County*, 487 F.3d 1246, 1249 (9th Cir. 2007); *Sprewell*  
 24 *v. Golden State Warriors*, 266 F.3d 979, 988 (9th Cir. 2001). “[A] plaintiff’s obligation to  
 25 provide the ‘grounds’ of his ‘entitle[ment] to relief’ requires more than labels and  
 26 conclusions, and a formulaic recitation of the elements of a cause of action will not do.  
 27 Factual allegations must be enough to raise a right to relief above the speculative level.”  
 28 *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 555 (2007) (citations and footnote omitted).

**B. Patentable Subject Matter and the *Alice* Standard**

Under Section 101 of the Patent Act, an inventor may obtain a patent on “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” 35 U.S.C. § 101. Courts, however, “have long held that this provision contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. Pty. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014) (quoting *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2116 (2013)). The concern behind these excepted categories is “one of preemption” — if an inventor could obtain patent protection over these “building blocks of human ingenuity,” then the patent scheme would work to undermine, not promote, future innovation. *Id.* at 2354. But courts are careful to balance concerns over preemption with the fact that “all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.” *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1293 (2012). Thus, where an invention moves beyond an abstract idea by applying it “to a new and useful end,” the invention will meet the Section 101 standard. *Alice Corp.*, 134 S. Ct. at 2354 (quoting *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)).

In light of these competing concerns, the Supreme Court has developed a two-part test to assess whether a patent covers an abstract idea. First, courts must determine whether a patent’s claims are directed to a “patent-ineligible concept,” such as an abstract idea. *Id.* at 2355. Abstract ideas may be “preexisting, fundamental truth[s]” such as mathematical equations, and also encompass “method[s] of organizing human activity” or “longstanding commercial practice [s]” like intermediated settlement or risk hedging. *Id.* at 2356.

Second, if the court “determine[s] that the patent is drawn to an abstract idea or otherwise ineligible subject matter,” then the court examines “whether the remaining elements, either in isolation or combination with the non-patent-ineligible elements, are sufficient to ‘transform the nature of the claim into a patent-eligible application.’”

1 *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1366-67 (Fed.  
2 Cir. 2015) (quoting *Alice Corp.*, 134 S. Ct. at 2358).

3 Whether a patent is eligible under § 101 is a question of law that may be  
4 determined at the dismissal stage. See *Accenture Glob. Servs., GmbH v. Guidewire*  
5 *Software, Inc.*, 728 F.3d 1336, 1340-41 (Fed. Cir. 2013) (reviewing a § 101  
6 determination de novo, but noting that the legal issue on review “may contain underlying  
7 factual issues”); see also *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343,  
8 1348-49 (Fed. Cir. 2015) (affirming a district court’s granting of a motion to dismiss on §  
9 101 grounds).

#### 10 **IV. DISCUSSION**

11 Defendants attack all four of POWERbahn’s patents, arguing that each patent  
12 fails both lines of the *Alice* inquiry — that is, each patent is directed at an abstract idea  
13 and is not transformed by additional elements. Two of the patents are based on method  
14 claims and two are based on utility (in this case exercise equipment) claims. The parties  
15 advanced similar arguments for and against the two types of claims. The Court will  
16 address each claim in turn.

##### 17 **A. The ‘865 Patent**

18 The ‘865 patent contains several different claims. Defendants point to claim 1 as  
19 representative (ECF No. 54 at 19), and POWERbahn points to claim 16 (ECF No. 59 at  
20 5.) Claim 1 and claim 16 are similar, but claim 16 is slightly broader, making it more  
21 susceptible to Defendants’ arguments. (See ECF No. 54 at 19 n.4.) The Court will  
22 therefore base its analysis on claim 16, which reads:

23 16. An apparatus for simulating forces and movement of a human subject  
24 during a physical activity, comprising:  
25 a base;  
26 a movable member mounted to the base, the movable member defining a  
27 velocity and receiving an input force applied to the movable member by a human  
28 subject;  
a force-generating device operably coupled to the movable member and  
applying a resistance force to the movable member;

1 a sensor configured to provide a signal corresponding to at least one of the  
2 velocity of the movable member and an input force applied to the movable  
member by a human subject; and

3 a controller configured to control the resistance force applied to the  
4 movable member by the force-generating device based, at least in part, on a  
signal provided by the sensor and a haptic equation incorporating an equation of  
5 motion of a human subject performing the physical activity being simulated.

6 (ECF No. 1-11 at 67 (61:25-62:7).)

7 The first step of the *Alice* test asks whether the claims at issue are directed to an  
8 abstract idea. *Alice Corp.*, 134 S. Ct. at 2355. “The ‘abstract ideas’ category embodies  
9 ‘the longstanding rule that an idea of itself is not patentable.’” *Id.* (alteration omitted)  
10 (quoting *Benson*, 409 U.S. at 67). Even without clear guidelines defining what  
11 constitutes an abstract idea, the Supreme Court has “provided some important  
12 principles” through its § 101 jurisprudence. *DDR Holdings, LLC v. Hotels.com, L.P.*, 773  
13 F.3d 1245, 1256 (Fed. Cir. 2014). Courts should examine the claims “in their entirety to  
14 ascertain whether their character as a whole is directed to excluded subject matter.”  
15 *Internet Patents Corp.*, 790 F.3d at 1346.

16 Defendants argue that claim 16, and the ‘865 patent as a whole, are drawn to  
17 laws of nature, specifically focusing on the haptic equation mentioned in the last line of  
18 claim 16. (ECF No. 54 at 19.) This argument either grossly misreads the claims in the  
19 patent or stretches the rule in *Alice* beyond recognition. While it is true that the claim  
20 includes a formula, the claim is clearly directed at a piece of exercise equipment, and  
21 the formula is simply one part of the overall scheme. Including a law of nature as one  
22 part of a claim does not transform the entire scheme into an abstract idea. *See Diamond*  
23 *v. Diehr*, 450 U.S. 175, 187, (1981) (including a mathematical formula in a process for  
24 curing synthetic rubber does not render it unpatentable); *see also Alice Corp.*, 134 S. Ct.  
25 at 2354 (“[A]n invention is not rendered ineligible for patent simply because it involves an  
26 abstract concept.”). The equation is used to calculate the amount of resistance applied  
27 by one part of the machine described, and the machine itself includes a number of  
28 different interacting parts. It is clearly distinguishable from the patents at issue in *Alice*

1 and *Mayo*, and also from the patents deemed ineligible by the Federal Circuit applying  
 2 those decisions. *Cf. Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d  
 3 1344, 1350 (Fed. Cir. 2014) (patent claimed an abstract idea because it described “a  
 4 process of organizing information through mathematical correlations and is not tied to a  
 5 specific structure or machine.”); *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355  
 6 (Fed. Cir. 2014) (“[C]laims...squarely about creating a contractual relationship...are  
 7 directed to an abstract idea.”).

8 The Court finds that the claims in the ‘865 patent are not directed at abstract  
 9 ideas, but rather tangible exercise apparatuses. Therefore, Defendants’ argument fails  
 10 the first prong of the two-step *Alice* test, and the Motion fails as it relates to the ‘865  
 11 patent.

#### 12 **B. The ‘476 Patent**

13 The ‘476 patent also contains several different claims. Defendants and  
 14 POWERBahn agree that claim 1 is representative. (ECF No. 54 at 23; ECF No. 59 at 6.)  
 15 Claim 1 reads:

16 1. An exercise device for simulating a human physical activity of the  
 17 type involving an application of a human input force to an object resulting in  
 18 acceleration of the object in a manner that is capable of being described by  
 19 an equation of motion of the type that describes the acceleration of a mass  
 under an influence of a force generated by a human in performing the  
 activity, the exercise device comprising:

20 a structural support;

21 a user input member movably connected to the structural support for  
 22 movement relative to the structural support to define a measured velocity  
 that is measured during application of an input force to the input member  
 by a user, and wherein the user input member defines a variable  
 resistance force tending to resist movement due to input force applied by a  
 user;

23 a control system that utilizes a velocity difference between the  
 24 measured velocity and a virtual velocity as a control input to control the  
 25 resistance force on the user input member, wherein the control system is  
 26 configured to continuously and rapidly recalculate the virtual velocity while  
 27 an input force is being applied to the input member by a user, and wherein  
 28 the control system is configured to determine the virtual velocity, at least in  
 part, utilizing an equation of motion of the type that describes the  
 acceleration of a mass under an influence of a force for the human physical  
 activity being simulated and wherein the control system is configured to  
 continuously and rapidly recalculate the velocity difference while an input  
 force is being applied to the input member by a user such that the

1 resistance force varies to simulate the changes in force experienced by a  
2 user due to changes in momentum of the human physical activity that is  
being simulated.

3 (ECF 1-12 at 43 (58:52-59:13).)

4 Defendants reiterate the same argument relating to the '476 patent. (ECF No. 54  
5 at 24.) POWERbahn offers the same response. (ECF No. 59 at 6-7.) Usurprisingly, the  
6 Court reaches the same conclusion. The '476 patent is directed at tangible exercise  
7 apparatuses and incorporates an equation to simulate real world conditions by adjusting  
8 resistance. It is not directed at an abstract idea, and therefore it does not meet the first  
9 part of the *Alice* test. The Motion is denied with respect to the '476 patent.

### 10 **C. The '964 Patent**

11 The '964 patent contains one independent method claim and several dependant  
12 claims. The parties agree that the method claim in claim 1 is representative. (ECF No. 54  
13 at 21-22; ECF No. 59 at 7-8.) Claim 1 reads:

14 1. A method of controlling stationary exercise apparatus of the type  
15 having at least one movable component providing a simulation of a  
16 corresponding physical activity involving human motion, wherein the  
17 exercise apparatus is capable of controlling at least one of the movement  
and the resistance of the movable component to simulate the effects of  
changes in momentum that occur during the physical activity being  
simulated, the method comprising:

18 determining an applied force that is applied to a component of the  
19 exercise apparatus by a user during use thereof by measuring an operating  
parameter of the stationary exercise apparatus that is related to an applied  
force that is applied to a component of the exercise apparatus by a user  
during use thereof;

20 determining a virtual velocity of the physical activity being simulated,  
21 wherein the estimate of a target velocity comprises an estimate of a  
22 velocity that would occur during the physical activity being simulated if the  
applied force had been applied by a user during an actual physical activity;  
determining an actual velocity based on a measured velocity of the  
movable component of the stationary exercise apparatus;

23 comparing the actual velocity of the virtual velocity; and controlling  
24 at least one of the movement and the resistance to movement of the at  
least one movable component to simulate the effects of changes in  
25 momentum based, at least in part, on the comparison of the actual velocity  
to the virtual velocity.

26 (ECF No. 1-13 at 65-66 (58:52-59:13).)

27 The claim describes a method for controlling exercise equipment wherein the  
28 force of the user's movement is measured and run through a formula in order to



1 determine how much resistance should be applied to mimic real world conditions.  
2 Defendants argue that the '964 patent simply describes a mathematical relationship, and  
3 that the additional steps do not narrow or transform the non patentable idea into a  
4 patentable invention. (ECF No. 54 at 12, 22.) POWERbahn argues that the '964 patent  
5 is drawn to a specific method for controlling exercise equipment, rather than an abstract  
6 idea, and even if it were drawn to an abstract idea, the claim includes an inventive  
7 concept which satisfies the second prong of the *Alice* analysis. (ECF No. 59 at 1-12.)

8 The method claim in the '964 patent is a closer call than the claims in the '865 and  
9 '476 patents. It shares some characteristics with the patent struck down in *Mayo*. Both  
10 patents claimed a method comprised of a small number of steps which included  
11 measuring a phenomenon, running that measurement through a formula, and applying  
12 the outcome in a relatively simple way. See *Mayo*, 132 S.Ct. at 1299.

13 However, the '964 patent, unlike the patent in *Mayo*, is not drawn to an abstract  
14 idea. In applying the first *Alice* step, the Court needs to determine the nature or heart of  
15 the claim. See *Intellectual Ventures I LLC v. Erie Indem. Co.*, 134 F. Supp. 3d 877, 897  
16 (W.D. Pa. 2015) (collecting cases). In this case, the nature of the method claim is the  
17 operation of a piece of exercise equipment, like a treadmill, elliptical, or stationary bike,  
18 in order to simulate the conditions of running or biking outdoors. Unlike other patents  
19 which were determined to be directed at abstract concepts, the '964 patent is aimed at a  
20 "particular concrete or tangible form." See *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709,  
21 715 (Fed. Cir. 2014), cert. denied sub nom. *Ultramercial, LLC v. WildTangent, Inc.*, 135  
22 S. Ct. 2907 (2015). It does not simply describe relationships between naturally occurring  
23 chemical relationships (*Mayo*, 132 S.Ct. at 1296) or long existant economic practices  
24 (*Alice*, 134 S.Ct. at 2356). It describes a way of running a specific type of machine in  
25 order to achieve a particular type of training. This is not the type of broad idea that  
26 threatens to monopolize "basic tools of scientific and technological work" or "the building  
27 blocks of human ingenuity." *Alice*, 134 S. Ct. at 2354 (quoting *Myriad Genetics*, 133 S.  
28 Ct. at 2116 and *Mayo*, 132 S.Ct. at 1301).



For these reasons the Court finds that the '964 patent is also not directed at an abstract idea. Defendants have not shown that the first *Alice* step is satisfied, and the Motion is denied with respect to the '964 patent.

#### **D. The '015 Patent**

The '015 patent contains two independent claims, claim 1 and claim 10. The parties agree that claim 1 is representative. (ECF No. 54 at 9; ECF No. 59 at 8.) Claim 1 reads:

1. A method of controlling stationary exercise apparatus of the type having at least one movable component providing a simulation of a corresponding physical activity involving human motion, wherein the exercise apparatus is capable of controlling at least one of the movement and the resistance of the movable component to simulate the effects of changes in momentum that occur during the physical activity, the method comprising:

determining an equation of motion for a physical activity involving human motion that is to be simulated by the exercise apparatus, wherein the equation of motion includes at least one term that accounts for changes in momentum and a corresponding force experienced by a human during the physical activity;

determining a value of a variable corresponding to at least one of a user's mass, a velocity of the movable component of the exercise apparatus, and a force applied to a component of the exercise apparatus during use thereof;

providing a controller;  
configuring the controller to control at least one of the movement and the resistance to movement of the at least one movable component to simulate the effects of changes in momentum based, at least in part, on a control parameter determined at least in part by the value of the variable and the equation of motion for the physical activity being simulated by the apparatus.

(ECF No. 1-14 at 65-66 (58:50-59:8).)

Defendants advance the same argument with respect to the '964 and '015 patents. (ECF No. 54 at 9-12, 22.) POWERbahn offers the same rebuttal. (ECF No. 59 at 9-10.) Once again, the Court reaches the same conclusion.

The '015 patent is not directed at an unpatentable abstract idea. The first *Alice* step is not satisfied and the Motion is denied with respect to the '015 patent.

#### **V. CONCLUSION**

The Court notes that the parties made several arguments and cited to several cases not discussed above. The Court has reviewed these arguments and cases and

1 determines that they do not warrant discussion or reconsideration as they do not affect  
2 the outcome of Defendants' Motion.

3 It is therefore ordered that Defendants' Motion for Judgment on the Pleadings  
4 (ECF No. 54) is denied.

5 DATED THIS 11th day of August 2016

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MIRANDA M. DU  
UNITED STATES DISTRICT JUDGE